

Abrines, David

From: Park, Andy
Sent: Wednesday, April 30, 2014 8:44 AM
To: Bergman, Erica
Cc: Everett, Adolph; Azzam, Nidal
Subject: RE: Air Dispersion Model - Solvay
Attachments: RE: Air Dispersion Model - Solvay

Erica,

Attached please see our review.

Thanks,

Andrew Park, Acting Chief
Corrective Action Section
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184 (O)
212-637-4437 (F)
park.andy@epa.gov (E-Mail)

From: Bergman, Erica [<mailto:Erica.Bergman@dep.state.nj.us>]
Sent: Tuesday, April 29, 2014 4:03 PM
To: Park, Andy
Subject: FW: Air Dispersion Model - Solvay

Andy,

Please see Solvay's response to EPA's comment on the air dispersion model.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Gertz, Mitchell [<mailto:mitchell.gertz@solvay.com>]
Sent: Tuesday, April 29, 2014 7:48 AM
To: Bergman, Erica
Cc: Philip Goodrum; Jim Lape; Geoff Pass; Charles Jones
Subject: Air Dispersion Model

Erica,

This email is in response to your email of April 10, 2014 that contained the EPA comments on the air model. The USEPA suggestion was "*The modeling analysis will provide a better spatial distribution of the cumulative impacts if there is a model run with all the units emitting the same pollutant in a single run. This would show spatial distribution of the cumulative impacts rather than the individual units even if unit emissions are desired.*"

We think there was a misunderstanding of our intentions regarding the model. Our air modeling team agrees and planned just such a model run to examine cumulative contributions to both air concentrations and particle deposition. That is, we will simulate a scenario in which all air emission units are operating together. Multiple such model runs will be conducted to examine a wide range of individual source contributions to the cumulative annual airborne emissions based on estimates of historic emission rates. The results of this analysis will supplement the results of model runs in which each emission unit is examined individually.

--
Mitch Gertz
Solvay Specialty Polymers
HSE Compliance Manager
T: 856-251-6630 - M: 856-371-9318
10 Leonard Lane
West Deptford, NJ 08086
www.solvay.com

This message and any attachments is intended for the named addressee(s) only and may contain information that is privileged and/or confidential. If you receive this message in error, please delete it and immediately notify the sender. Any copying, dissemination or disclosure, either whole or partial, by a person who is not the named addressee is prohibited. We use virus scanning software but disclaim any liability for viruses or other devices which remain in this message or any attachments.

Ce message, ainsi que toute piece jointe, est exclusivement adresse au(x) destinataire(s) nomme(s) et peut contenir des informations confidentielles. Si vous recevez ce message par erreur, merci de le detruire et d'en avvertir immediatement l'emetteur. Toute copie, transmission ou divulgation, integrale ou partielle, par une personne qui n'est pas nommee comme destinataire est interdite. Nous utilisons un logiciel anti-virus mais nous denions toute responsabilite au cas ou des virus, ou tout autre procede, seraient contenus dans ce message ou toute piece jointe.

Abrines, David

From: Coulter, Annamaria
Sent: Tuesday, April 29, 2014 5:00 PM
To: Park, Andy
Cc: Azzam, Nidal; Riva, Steven
Subject: RE: Air Dispersion Model - Solvay

Andy,

ok, it looks like we are on the same page. Thanks.

Annamaria

From: Park, Andy
Sent: Tuesday, April 29, 2014 4:15 PM
To: Coulter, Annamaria
Cc: Azzam, Nidal; Riva, Steven
Subject: FW: Air Dispersion Model - Solvay

Annamaria,

Please see below. It seems that Solvay agrees to follow your suggestion.
Let me know as needed.

Thanks,
Andy

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]
Sent: Tuesday, April 29, 2014 4:03 PM
To: Park, Andy
Subject: FW: Air Dispersion Model - Solvay

Andy,
Please see Solvay's response to EPA's comment on the air dispersion model.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us<mailto:erica.bergman@dep.state.nj.us>
609-292-7406

From: Gertz, Mitchell [mailto:mitchell.gertz@solvay.com]
Sent: Tuesday, April 29, 2014 7:48 AM
To: Bergman, Erica

Cc: Philip Goodrum; Jim Lape; Geoff Pass; Charles Jones
Subject: Air Dispersion Model

Erica,

This email is in response to your email of April 10, 2014 that contained the EPA comments on the air model. The USEPA suggestion was "The modeling analysis will provide a better spatial distribution of the cumulative impacts if there is a model run with all the units emitting the same pollutant in a single run. This would show spatial distribution of the cumulative impacts rather than the individual units even if unit emissions are desired."

We think there was a misunderstanding of our intentions regarding the model. Our air modeling team agrees and planned just such a model run to examine cumulative contributions to both air concentrations and particle deposition. That is, we will simulate a scenario in which all air emission units are operating together. Multiple such model runs will be conducted to examine a wide range of individual source contributions to the cumulative annual airborne emissions based on estimates of historic emission rates. The results of this analysis will supplement the results of model runs in which each emission unit is examined individually.

--

Mitch Gertz
Solvay Specialty Polymers
HSE Compliance Manager
T: 856-251-6630 - M: 856-371-9318
10 Leonard Lane
West Deptford, NJ 08086
www.solvay.com<<http://www.solvay.com/>>

This message and any attachments is intended for the named addressee(s) only and may contain information that is privileged and/or confidential. If you receive this message in error, please delete it and immediately notify the sender. Any copying, dissemination or disclosure, either whole or partial, by a person who is not the named addressee is prohibited. We use virus scanning software but disclaim any liability for viruses or other devices which remain in this message or any attachments.

Ce message, ainsi que toute pièce jointe, est exclusivement adressé au(x) destinataire(s) nommé(s) et peut contenir des informations confidentielles. Si vous recevez ce message par erreur, merci de le détruire et d'en avvertir immédiatement l'émetteur. Toute copie, transmission ou divulgation, intégrale ou partielle, par une personne qui n'est pas nommée comme destinataire est interdite. Nous utilisons un logiciel anti-virus mais nous déclinons toute responsabilité au cas où des virus, ou tout autre procédé, seraient contenus dans ce message ou toute pièce jointe.

Abrines, David

From: Coulter, Annamaria
Sent: Wednesday, April 09, 2014 2:45 PM
To: Park, Andy
Cc: Riva, Steven; Azzam, Nidal
Subject: RE: Response to comments on air dispersion model

Andy,

The first 3 responses are adequate. The last one regarding the cumulative impacts is not responsive. The modeling will be done using unit emission rates (i.e., an emission rate of 1 g/s...in which case the impacts outputted by the model could simply be proportioned by the actual emission rate to find the actual impacts.) They claim that the emissions are not known. The response says that they are looking for the spatial distribution of whatever emissions rather than the actual impact. Even if this is the case, if the all the units are in one model run you get a better depiction of the spatial distribution. So, I would recommend that they can still model the units separately if they want to but there should be a run with all the units in one run even if unit emission rates are used. You can send the following comment along:

Response 1, 2 and 3 are adequate. However, Response 4 should still be addressed further. The modeling analysis will provide a better spatial distribution of the cumulative impacts if there is a model run with all the units emitting the same pollutant in a single run. This would show spatial distribution of the cumulative impacts rather than the individual units even if unit emissions are desired.

Please let me know if you have any other questions. I understand they are having a meeting with NJDEP on May 1st. I will not be available to attend.

Annamaria

From: Park, Andy
Sent: Wednesday, April 09, 2014 12:56 PM
To: Coulter, Annamaria
Cc: Riva, Steven; Azzam, Nidal
Subject: FW: Response to comments on air dispersion model

Annamaria,

Attached see Solvay's response to the comments. Please let me know if it is acceptable.

Thanks,

Andrew Park, Acting Chief
Corrective Action Section
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184 (O)
212-637-4437 (F)
park.andy@epa.gov (E-Mail)

From: Bergman, Erica [<mailto:Erica.Bergman@dep.state.nj.us>]
Sent: Wednesday, April 09, 2014 12:01 PM
To: Park, Andy; John, Greg
Subject: FW: Response to comments on air dispersion model

See attached for Solvay's response to EPA comments on the air dispersion modeling.

Let me know if their responses are acceptable.

thanks, Erica

From: Gertz, Mitchell [<mailto:mitchell.gertz@solvay.com>]
Sent: Wednesday, April 09, 2014 11:42 AM
To: Bergman, Erica
Subject: Response to comments on air dispersion model

Erica,

Attached is our consultant's (Integral) response to the comments on the air dispersion model.

Contact me if there are any questions.

--

Mitch Gertz
Solvay Specialty Polymers
HSE Compliance Manager
T: 856-251-6630 - M: 856-371-9318
10 Leonard Lane
West Deptford, NJ 08086
www.solvay.com

This message and any attachments is intended for the named addressee(s) only and may contain information that is privileged and/or confidential. If you receive this message in error, please delete it and immediately notify the sender. Any copying, dissemination or disclosure, either whole or partial, by a person who is not the named addressee is prohibited. We use virus scanning software but disclaim any liability for viruses or other devices which remain in this message or any attachments.

Ce message, ainsi que toute pièce jointe, est exclusivement adressé au(x) destinataire(s) nommé(s) et peut contenir des informations confidentielles. Si vous recevez ce message par erreur, merci de le détruire et d'en avertir immédiatement l'expéditeur. Toute copie, transmission ou divulgation, intégrale ou partielle, par une personne qui n'est pas nommée comme destinataire est interdite. Nous utilisons un logiciel anti-virus mais nous déclinons toute responsabilité au cas où des virus, ou tout autre procédé, seraient contenus dans ce message ou toute pièce jointe.

Abrines, David

From: Coulter, Annamaria
Sent: Tuesday, April 29, 2014 5:00 PM
To: Park, Andy
Cc: Azzam, Nidal; Riva, Steven
Subject: RE: Air Dispersion Model - Solvay

Andy,

ok, it looks like we are on the same page. Thanks.

Annamaria

From: Park, Andy
Sent: Tuesday, April 29, 2014 4:15 PM
To: Coulter, Annamaria
Cc: Azzam, Nidal; Riva, Steven
Subject: FW: Air Dispersion Model - Solvay

Annamaria,

Please see below. It seems that Solvay agrees to follow your suggestion.
Let me know as needed.

Thanks,
Andy

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]
Sent: Tuesday, April 29, 2014 4:03 PM
To: Park, Andy
Subject: FW: Air Dispersion Model - Solvay

Andy,
Please see Solvay's response to EPA's comment on the air dispersion model.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us<mailto:erica.bergman@dep.state.nj.us>
609-292-7406

From: Gertz, Mitchell [mailto:mitchell.gertz@solvay.com]
Sent: Tuesday, April 29, 2014 7:48 AM
To: Bergman, Erica

Cc: Philip Goodrum; Jim Lape; Geoff Pass; Charles Jones
Subject: Air Dispersion Model

Erica,

This email is in response to your email of April 10, 2014 that contained the EPA comments on the air model. The USEPA suggestion was "The modeling analysis will provide a better spatial distribution of the cumulative impacts if there is a model run with all the units emitting the same pollutant in a single run. This would show spatial distribution of the cumulative impacts rather than the individual units even if unit emissions are desired."

We think there was a misunderstanding of our intentions regarding the model. Our air modeling team agrees and planned just such a model run to examine cumulative contributions to both air concentrations and particle deposition. That is, we will simulate a scenario in which all air emission units are operating together. Multiple such model runs will be conducted to examine a wide range of individual source contributions to the cumulative annual airborne emissions based on estimates of historic emission rates. The results of this analysis will supplement the results of model runs in which each emission unit is examined individually.

--
Mitch Gertz
Solvay Specialty Polymers
HSE Compliance Manager
T: 856-251-6630 - M: 856-371-9318
10 Leonard Lane
West Deptford, NJ 08086
www.solvay.com<<http://www.solvay.com/>>

This message and any attachments is intended for the named addressee(s) only and may contain information that is privileged and/or confidential. If you receive this message in error, please delete it and immediately notify the sender. Any copying, dissemination or disclosure, either whole or partial, by a person who is not the named addressee is prohibited. We use virus scanning software but disclaim any liability for viruses or other devices which remain in this message or any attachments.

Ce message, ainsi que toute pièce jointe, est exclusivement adressé au(x) destinataire(s) nommé(s) et peut contenir des informations confidentielles. Si vous recevez ce message par erreur, merci de le détruire et d'en avvertir immédiatement l'émetteur. Toute copie, transmission ou divulgation, intégrale ou partielle, par une personne qui n'est pas nommée comme destinataire est interdite. Nous utilisons un logiciel anti-virus mais nous déclinons toute responsabilité au cas où des virus, ou tout autre procédé, seraient contenus dans ce message ou toute pièce jointe.

Abrines, David

From: Park, Andy
Sent: Wednesday, April 09, 2014 12:56 PM
To: Coulter, Annamaria
Cc: Riva, Steven; Azzam, Nidal
Subject: FW: Response to comments on air dispersion model
Attachments: Air Dispersion Comment Response.docx

Annamaria,

Attached see Solvay's response to the comments. Please let me know if it is acceptable.

Thanks,

Andrew Park, Acting Chief
Corrective Action Section
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184 (O)
212-637-4437 (F)
park.andy@epa.gov (E-Mail)

From: Bergman, Erica [<mailto:Erica.Bergman@dep.state.nj.us>]
Sent: Wednesday, April 09, 2014 12:01 PM
To: Park, Andy; John, Greg
Subject: FW: Response to comments on air dispersion model

See attached for Solvay's response to EPA comments on the air dispersion modeling.

Let me know if their responses are acceptable.

thanks, Erica

From: Gertz, Mitchell [<mailto:mitchell.gertz@solvay.com>]
Sent: Wednesday, April 09, 2014 11:42 AM
To: Bergman, Erica
Subject: Response to comments on air dispersion model

Erica,

Attached is our consultant's (Integral) response to the comments on the air dispersion model.

Contact me if there are any questions.

--

Mitch Gertz
Solvay Specialty Polymers
HSE Compliance Manager

T: 856-251-6630 - M: 856-371-9318
10 Leonard Lane
West Deptford, NJ 08086
www.solvay.com

This message and any attachments is intended for the named addressee(s) only and may contain information that is privileged and/or confidential. If you receive this message in error, please delete it and immediately notify the sender. Any copying, dissemination or disclosure, either whole or partial, by a person who is not the named addressee is prohibited. We use virus scanning software but disclaim any liability for viruses or other devices which remain in this message or any attachments.

Ce message, ainsi que toute piece jointe, est exclusivement adresse au(x) destinataire(s) nomme(s) et peut contenir des informations confidentielles. Si vous recevez ce message par erreur, merci de le detruire et d'en avertir immediatement l'emetteur. Toute copie, transmission ou divulgation, integrale ou partielle, par une personne qui n'est pas nommee comme destinataire est interdite. Nous utilisons un logiciel anti-virus mais nous denions toute responsabilite au cas ou des virus, ou tout autre procede, seraient contenus dans ce message ou toute piece jointe.



Integral Consulting Inc.
200 Harry S. Truman Parkway
Suite 330
Annapolis, MD 21401

telephone: 410.573.1982
facsimile: 410.573.9746
www.integral-corp.com

MEMORANDUM

To: Mitch Gertz, Solvay Specialty Polymers LLC
From: Jim Lape, Integral Consulting Inc.
Date: April 8, 2014
Subject: Response to Comments from USEPA on Air Modeling Protocol for Airborne Perfluoroalkyl Emissions
Project No.: C1165-0401

This memorandum provides responses to four comments from the NJDEP regarding the air modeling proposed for historic airborne emissions of perfluoroalkyl compounds from the Solvay Specialty Polymers USA, (Solvay) LLC facility in West Deptford, New Jersey. The comments were conveyed in an email from Erica Bergman of NJDEP to you on March 31, 2014. We have reproduced the comments below.

RESPONSE TO COMMENTS FROM USEPA

Comment #1 – *The AERMOD dispersion model was used in this case which is acceptable. NJDEP ran the AERMET preprocessor and provided the facility with the preprocessed meteorological data that is input to AERMOD. The meteorological data was measured at the National Weather Station in Philadelphia between 1990 to 1994 with concurrent upper air data from Atlantic City and Brookhaven. The time frame and location of the measurements are acceptable. However, it would be advisable to run the model and process the data using the most current version of AERMOD and AERMET. It is not clear which version was used in this case.*

Response #1 – The air modeling is being conducted using version 13350 of AERMOD, which is the most current version. We are using meteorological data provided by Greg John of NJDEP. The data were compiled for the period from 2008 to 2012 from surface observations at the National Weather Service (NWS) Station in Philadelphia, PA, and concurrent upper air data from the NWS Station in Sterling, VA. The data were processed using AERMET version 12345, which is compatible with AERMOD version 13350.

Comment #2 – *The workplan notes that some of the meteorological parameters that are necessary for deposition modeling (such as precipitation and relative humidity) may be missing from the NJDEP data set. If so, the facility will obtain the additional data and include it in the final report. Again, this is acceptable but AERMET will need to be rerun using the full data set.*

Response #2 – The meteorological data provided by NJDEP for this modeling effort contained all necessary parameters to allow for wet and dry particle deposition modeling; therefore, no additional data are required after all.

Comment #3 – *The model plan assumes that all the terrain in the area is flat. If the terrain in the area of impact is below stack height then this may be a reasonable assumption. But if the terrain height exceeds the stack height then the AERMAP preprocessor should also be run using the actual terrain features. AERMOD would then need the actual base elevation of the emission points and of the anemometer. These must be inputted into the model (preferably in meters). The receptor grid would also need to reflect the actual ground elevation.*

Response #3 – There are no locations within the model domain where the terrain elevations exceed the stack height for the primary stack sources. Additionally, the vast majority of the terrain within the model domain is below the shortest of the secondary stack sources. The terrain to the southeast of the air emission sources gently rises and reaches an elevation equal to or greater to the height of the secondary stack sources at a distance of 2 miles downstream. However, the maximum ground-level air concentrations in this direction for emissions from the secondary sources occur more than 1.5 miles upstream of this location.

In summary, the primary stack sources, which are the focus of this modeling exercise, are above the maximum terrain elevation throughout the model domain, and the effects of terrain on air concentrations for the secondary sources will be negligible in areas of elevated terrain. Accordingly, the model runs will reflect the assumption as specified in the Work Plan.

Comment #4 – *There were separate input files for each emission point. It would be preferable to include all the emission points into a single input file so that the cumulative impacts may be better assessed.*

Response #4 – Source-specific air emission data were not available for the site; therefore, each of the relevant stacks were modeled discreetly using a unit emission rate to provide an understanding of the relative dispersion and deposition characteristics for each source. In the absence of source-specific emissions data, these individual results, combined with an understanding of the nature of the processes leading to the airborne emissions, are fundamental to developing a reliable conceptualization of the spatial distribution of

airborne emissions. The final air modeling report will provide details on additional air modeling conducted as part of the sensitivity and uncertainty analysis performed for this project to evaluate the potential cumulative effect on the spatial distribution from multiple air emission sources operating simultaneously.

Abrines, David

From: Park, Andy
Sent: Tuesday, April 29, 2014 4:16 PM
To: Coulter, Annamaria
Cc: Azzam, Nidal; Riva, Steven
Subject: FW: Air Dispersion Model - Solvay

Annamaria,

Please see below. It seems that Solvay agrees to follow your suggestion.
Let me know as needed.

Thanks,
Andy

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]
Sent: Tuesday, April 29, 2014 4:03 PM
To: Park, Andy
Subject: FW: Air Dispersion Model - Solvay

Andy,
Please see Solvay's response to EPA's comment on the air dispersion model.

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Gertz, Mitchell [mailto:mitchell.gertz@solvay.com]
Sent: Tuesday, April 29, 2014 7:48 AM
To: Bergman, Erica
Cc: Philip Goodrum; Jim Lape; Geoff Pass; Charles Jones
Subject: Air Dispersion Model

Erica,

This email is in response to your email of April 10, 2014 that contained the EPA comments on the air model. The USEPA suggestion was "*The modeling analysis will provide a better spatial distribution of the cumulative impacts if there is a model run with all the units emitting the same pollutant in a single run. This would show spatial distribution of the cumulative impacts rather than the individual units even if unit emissions are desired.*"

We think there was a misunderstanding of our intentions regarding the model. Our air modeling team agrees and planned just such a model run to examine cumulative contributions to both air concentrations and particle deposition. That is, we will simulate a scenario in which all air emission units are operating together. Multiple such model

runs will be conducted to examine a wide range of individual source contributions to the cumulative annual airborne emissions based on estimates of historic emission rates. The results of this analysis will supplement the results of model runs in which each emission unit is examined individually.

--
Mitch Gertz
Solvay Specialty Polymers
HSE Compliance Manager
T: 856-251-6630 - M: 856-371-9318
10 Leonard Lane
West Deptford, NJ 08086
www.solvay.com

This message and any attachments is intended for the named addressee(s) only and may contain information that is privileged and/or confidential. If you receive this message in error, please delete it and immediately notify the sender. Any copying, dissemination or disclosure, either whole or partial, by a person who is not the named addressee is prohibited. We use virus scanning software but disclaim any liability for viruses or other devices which remain in this message or any attachments.

Ce message, ainsi que toute pièce jointe, est exclusivement adressé au(x) destinataire(s) nommé(s) et peut contenir des informations confidentielles. Si vous recevez ce message par erreur, merci de le détruire et d'en avertir immédiatement l'émetteur. Toute copie, transmission ou divulgation, intégrale ou partielle, par une personne qui n'est pas nommée comme destinataire est interdite. Nous utilisons un logiciel anti-virus mais nous déclinons toute responsabilité au cas où des virus, ou tout autre procédé, seraient contenus dans ce message ou toute pièce jointe.

Abrines, David

From: Park, Andy
Sent: Wednesday, April 09, 2014 4:16 PM
To: Bergman, Erica; John, Greg
Cc: Azzam, Nidal; Everett, Adolph
Subject: RE: Response to comments on air dispersion model

Erica,

Response 1, 2 and 3 are adequate. However, Response 4 should still be addressed further. The modeling analysis will provide a better spatial distribution of the cumulative impacts if there is a model run with all the units emitting the same pollutant in a single run. This would show spatial distribution of the cumulative impacts rather than the individual units even if unit emissions are desired.

Let me know if you have any questions.

Thanks,
Andy

Andrew Park, Acting Chief
Corrective Action Section
Hazardous Waste Programs Branch
U.S. Environmental Protection Agency Region 2
290 Broadway, 22nd Fl.
New York, New York 10007-1866
212-637-4184 (O)
212-637-4437 (F)
park.andy@epa.gov (E-Mail)

From: Bergman, Erica [<mailto:Erica.Bergman@dep.state.nj.us>]
Sent: Wednesday, April 09, 2014 12:01 PM
To: Park, Andy; John, Greg
Subject: FW: Response to comments on air dispersion model

See attached for Solvay's response to EPA comments on the air dispersion modeling.

Let me know if their responses are acceptable.

thanks, Erica

From: Gertz, Mitchell [<mailto:mitchell.gertz@solvay.com>]
Sent: Wednesday, April 09, 2014 11:42 AM
To: Bergman, Erica
Subject: Response to comments on air dispersion model

Erica,

Attached is our consultant's (Integral) response to the comments on the air dispersion model.

Contact me if there are any questions.

--

Mitch Gertz
Solvay Specialty Polymers
HSE Compliance Manager
T: 856-251-6630 - M: 856-371-9318
10 Leonard Lane
West Deptford, NJ 08086
www.solvay.com

This message and any attachments is intended for the named addressee(s) only and may contain information that is privileged and/or confidential. If you receive this message in error, please delete it and immediately notify the sender. Any copying, dissemination or disclosure, either whole or partial, by a person who is not the named addressee is prohibited. We use virus scanning software but disclaim any liability for viruses or other devices which remain in this message or any attachments.

Ce message, ainsi que toute piece jointe, est exclusivement adresse au(x) destinataire(s) nomme(s) et peut contenir des informations confidentielles. Si vous recevez ce message par erreur, merci de le detruire et d'en avertir immediatement l'emetteur. Toute copie, transmission ou divulgation, integrale ou partielle, par une personne qui n'est pas nommee comme destinataire est interdite. Nous utilisons un logiciel anti-virus mais nous denions toute responsabilite au cas ou des virus, ou tout autre procede, seraient contenus dans ce message ou toute piece jointe.

PFC Concentrations (ng/l or ppt) at the East Greenwich PWS (December 19, 2013)

Chemical Name	Well #2	Well #4	Well #3			
	Raw Water	Raw Water	Raw Water	Raw Water (Duplicate)	Treated Water	Treated Water (Duplicate)
PFOA	ND	ND	4.1	4.2	4.8	5.9
PFOS	ND	ND	2.8	2.7	3.3	3.4
PFNA	ND	ND	21	22	24	23
PFDA	ND	ND	ND	ND	ND	ND
PFUnA	ND	ND	ND	ND	ND	ND
PFDoA	ND	ND	ND	ND	ND	ND
PFTriA	ND	ND	ND	ND	ND	ND

PFC Concentrations (ng/l or ppt) at the National Park PWS (December 19, 2013)

Chemical Name	Well #6	Well #5			Borough Hall Tap	
	Raw Water	Raw Water	Treated Water	Treated Water (Duplicate)	Drinking Water	Drinking Water (Duplicate)
PFOA	2.6	2.9	2.8	3.0	3.5	3.3
PFOS	1.8J	1.6J	1.7J	1.6J	1.6J	1.8J
PFNA	11	13	14	15	14	14
PFDA	ND	ND	ND	ND	ND	ND
PFUnA	ND	ND	ND	ND	ND	ND
PFDoA	ND	ND	ND	ND	ND	ND
PFTriA	ND	ND	ND	ND	ND	ND

PFC Concentrations (mg/l or ppt) at the Paulsboro MUA (November 26, 2013)

Chemical Name	Well #8	Well #9	Well #7			
	Raw Water	Raw Water	Raw Water	Raw Water (Duplicate)	Treated Water	Treated Water (Duplicate)
PFOA	19	34	23	24	26	27
PFOS	15	1.6J	4.8	4.9	5.7	5.9
PFNA	15	7.4	92	88	96	110
PFDA	0.78J	ND	0.39J	0.41J	0.57J	0.42J
PFUnA	0.76J	ND	0.77J	0.46J	1.2J	0.74J
PFDoA	ND	ND	ND	ND	ND	ND
PFTriA	ND	ND	ND	ND	ND	ND

PFC Concentrations (mg/l or ppt) at the West Deptford MUA (October 30, 2013)

[illegible]

PFC Concentrations (n/l or ppt) at the Westville PWS (December 12, 2013)

Chemical Name	Well #4	Well #6	Well #5			
	Raw Water	Raw Water	Raw Water	Raw Water (Duplicate)	Treated Water	Treated Water (Duplicate)
PFOA	ND	1.7J	3.9	4.0	4.2	4.2
PFOS	ND	ND	1.7J	1.8J	1.9J	1.8J
PFNA	ND	0.77J	8.0	7.7	8.3	8.2
PFDA	ND	ND	ND	ND	ND	ND
PFUnA	ND	ND	ND	ND	ND	ND
PFDoA	ND	ND	ND	ND	ND	ND
PFTriA	ND	ND	ND	ND	ND	ND

PFC Concentrations (ng/l or ppt) at the Woodbury PWS (December 12, 2013)

[illegible]

PFOA	ND	ND	ND	ND	ND	ND	ND	ND	ND
PFDoA	ND	ND	ND	ND	ND	ND	ND	ND	ND
PFTriA	ND	ND	ND	ND	ND	ND	ND	ND	ND

PFC Concentrations (ng/l or ppt) at Solvay under NJPDES Permit NJ0005185

Chemical Name	November 21, 2013		December 17, 2013	
	Influent (V904)	Effluent (V915)	Influent (V904)	Effluent (V915)
PFOA	1,300	1,600	1,500	1,100
PFOS	1.9J	1.5J	5.7	3.4
PFNA	12,000	14,000	16,000	9,000
PFDA	56	62	130	51
PFOA	210	190	370	140
PFDoA	0.98J	0.6J	2.1J	0.94J
PFTriA	0.91J	ND	1.5J	1.0J
PFBS	0.74J	0.78J	3.1	2.1J
PFHpA	140	150	150	110
PFHxS	1.8J	2.0J	3.7	4.4
PFHxA	53	56	56	46
PFTeA	ND	ND	ND	ND

Abrines, David

From: Everett, Adolph
Sent: Friday, April 04, 2014 7:59 AM
To: Park, Andy
Cc: Azzam, Nidal
Subject: RE: Solvay - Meeting

Andy,

I can attend. I'll check with John and Ariel, but in the meantime you can reply that the date works for EPA.

From: Park, Andy
Sent: Thursday, April 03, 2014 4:18 PM
To: Everett, Adolph
Cc: Azzam, Nidal
Subject: FW: Solvay - Meeting

Adolph,

Can you please confirm if you, John and/or Ariel will attend?

Andrew Park
U.S. EPA Region 2
212-637-4184

From: Bergman, Erica [<mailto:Erica.Bergman@dep.state.nj.us>]
Sent: Thursday, April 03, 2014 4:06 PM
To: Park, Andy
Cc: Azzam, Nidal; Everett, Adolph
Subject: RE: Solvay - Meeting

Andy,

We spoke with Solvay today about postponing the meeting until May 1, where they propose a discussion on additional environmental data they are collecting and discuss their next steps. Let me know if EPA is available on May 1.

thanks,

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [<mailto:Park.Andy@epa.gov>]

Sent: Thursday, April 03, 2014 3:33 PM

To: Bergman, Erica

Cc: Azzam, Nidal; Everett, Adolph

Subject: Solvay - Meeting

Erica,

I was informed earlier that a monthly meeting with Solvay is scheduled for April 16. Please confirm if it is still on.

Thanks,

Andrew Park
U.S. EPA Region 2
212-637-4184

Abrines, David

From: Azzam, Nidal
Sent: Thursday, April 03, 2014 4:12 PM
To: Park, Andy
Cc: Everett, Adolph
Subject: RE: Solvay - Meeting

Andy

I am available.

Nidal Azzam,
Base Program Management Section, Chief
Hazardous Waste Programs Branch
Clean Air and Sustainability Division
USEPA Region 2
290 Broadway, 22nd Floor
New York, NY 10007
212-637-3748 Office
212-637-4437 Fax



From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]
Sent: Thursday, April 03, 2014 4:06 PM
To: Park, Andy
Cc: Azzam, Nidal; Everett, Adolph
Subject: RE: Solvay - Meeting

Andy,
We spoke with Solvay today about postponing the meeting until May 1, where they propose a discussion on additional environmental data they are collecting and discuss their next steps. Let me know if EPA is available on May 1.

thanks,

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [<mailto:Park.Andy@epa.gov>]
Sent: Thursday, April 03, 2014 3:33 PM
To: Bergman, Erica
Cc: Azzam, Nidal; Everett, Adolph
Subject: Solvay - Meeting

Erica,

I was informed earlier that a monthly meeting with Solvay is scheduled for April 16. Please confirm if it is still on.

Thanks,

Andrew Park
U.S. EPA Region 2
212-637-4184

Abrines, David

From: Park, Andy
Sent: Thursday, April 03, 2014 3:33 PM
To: Erica.Bergman@dep.state.nj.us
Cc: Azzam, Nidal; Everett, Adolph
Subject: Solvay - Meeting

Erica,

I was informed earlier that a monthly meeting with Solvay is scheduled for April 16. Please confirm if it is still on.

Thanks,

Andrew Park
U.S. EPA Region 2
212-637-4184

Abrines, David

From: Park, Andy
Sent: Thursday, April 03, 2014 4:18 PM
To: Everett, Adolph
Cc: Azzam, Nidal
Subject: FW: Solvay - Meeting

Adolph,

Can you please confirm if you, John and/or Ariel will attend?

Andrew Park
U.S. EPA Region 2
212-637-4184

From: Bergman, Erica [mailto:Erica.Bergman@dep.state.nj.us]
Sent: Thursday, April 03, 2014 4:06 PM
To: Park, Andy
Cc: Azzam, Nidal; Everett, Adolph
Subject: RE: Solvay - Meeting

Andy,

We spoke with Solvay today about postponing the meeting until May 1, where they propose a discussion on additional environmental data they are collecting and discuss their next steps. Let me know if EPA is available on May 1.

thanks,

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]
Sent: Thursday, April 03, 2014 3:33 PM
To: Bergman, Erica
Cc: Azzam, Nidal; Everett, Adolph
Subject: Solvay - Meeting

Erica,

I was informed earlier that a monthly meeting with Solvay is scheduled for April 16. Please confirm if it is still on.

Thanks,

Andrew Park
U.S. EPA Region 2
212-637-4184

Abrines, David

From: Bergman, Erica <Erica.Bergman@dep.state.nj.us>
Sent: Thursday, April 03, 2014 4:06 PM
To: Park, Andy
Cc: Azzam, Nidal; Everett, Adolph
Subject: RE: Solvay - Meeting

Andy,

We spoke with Solvay today about postponing the meeting until May 1, where they propose a discussion on additional environmental data they are collecting and discuss their next steps. Let me know if EPA is available on May 1.

thanks,

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, NJ 08625-0420
erica.bergman@dep.state.nj.us
609-292-7406

From: Park, Andy [mailto:Park.Andy@epa.gov]
Sent: Thursday, April 03, 2014 3:33 PM
To: Bergman, Erica
Cc: Azzam, Nidal; Everett, Adolph
Subject: Solvay - Meeting

Erica,

I was informed earlier that a monthly meeting with Solvay is scheduled for April 16. Please confirm if it is still on.

Thanks,

Andrew Park
U.S. EPA Region 2
212-637-4184